

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 053451
Application No.: 10/560,033

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A multi-layered heat-shrinkable film composed of at least three layers comprising:

front-back film layers each composed of a resin composition comprising cyclic olefin-based resin of from 55 to 95 mass % and linear low-density polyethylene of from 45 to 5 mass %; and

an intermediate film layer composed of a resin composition comprising propylene- α -olefin random copolymer of from 95 to 55 mass % and cyclic olefin-based resin of from 5 to 45 mass %, or composed of a resin composition comprising: a resin composition of from 95 to 55 mass % mainly composed of the propylene- α -olefin random copolymer; and the cyclic olefin-based resin of from 5 to 45 mass %,

wherein the propylene- α -olefin random copolymer that constitutes the intermediate film layer includes a petroleum resin in an amount of 5 to 70 parts by mass per 100 parts by mass of the propylene- α -olefin random copolymer in order to increase the heat shrinkage in the lateral direction; and

when immersed in hot water of 90°C for 10 seconds, the multi-layered heat-shrinkable film has a heat shrinkage in a lateral direction of 50 % or higher, and has a tear propagation strength in a longitudinal direction of from 800 to 350mN,

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 053451
Application No.: 10/560,033

wherein the stretching ratio of the multi-layered heat-shrinkable film is from 4.5 to 5.5 times.

2. (Cancelled)

3. (Original): The multi-layered heat-shrinkable film according to claim 1, wherein the resin composition mainly composed of the propylene- α -olefin random copolymer comprises the propylene- α -olefin random copolymer, the petroleum resin, and low-crystalline ethylene- α -olefin copolymer and/or low-crystalline propylene- α -olefin copolymer.

4. (Original): The multi-layered heat-shrinkable film according to claim 1, wherein the linear low-density polyethylene is metallocene catalyst-based linear low-density polyethylene.

5. (Original): The multi-layered heat-shrinkable film according to claim 1, wherein wet tension of at least one surface of the film is in a range of from 38 to 48 mN/m.

6. (Original): A container comprising:

a container body; and

a label comprising a multi-layered heat-shrinkable film according to claim 1, the label

being heat-shrunk onto the container body.

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 053451
Application No.: 10/560,033

7. (Currently Amended): A multi-layered heat-shrinkable film composed of at least three layers comprising:

front-back film layers each composed of a resin composition (1); and

an intermediate film layer composed of a resin composition (2), wherein:

an overcoat layer is provided on a principal surface of a front film layer of the multi-layered heat-shrinkable film, the principal surface being opposite a surface facing the intermediate film layer;

the resin composition (1) comprises cyclic olefin-based resin of from 55 to 95 mass % and linear low-density polyethylene of from 45 to 5 mass %; and

the resin composition (2) comprises propylene- α -olefin random copolymer of from 95 to 55 mass % and cyclic olefin-based resin of from 5 to 45 mass %, or comprises: a resin composition of from 95 to 55 mass % mainly composed of the propylene- α -olefin random copolymer; and the cyclic olefin-based resin of from 5 to 45 mass %,

wherein the propylene- α -olefin random copolymer that constitutes the intermediate film layer includes a petroleum resin in an amount of 5 to 70 parts by mass per 100 parts by mass of the propylene- α -olefin random copolymer in order to increase the heat shrinkage in the lateral direction;

wherein the stretching ratio of the multi-layered heat-shrinkable film is from 4.5 to 5.5 times.

Amendment under 37 C.F.R. §1.114

Attorney Docket No.: 053451

Application No.: 10/560,033

8. (Original): The multi-layered heat-shrinkable film according to claim 7, wherein an innercoat layer is provided on a principal surface of a back film layer of the multi-layered heat-shrinkable film, the principal surface being opposite a surface facing the intermediate film layer.

9. (Original): The multi-layered heat-shrinkable film according to claim 7, wherein the linear low-density polyethylene is metallocene catalyst-based linear low-density polyethylene.

10. (Original): A container comprising:

a container body; and

a label comprising a multi-layered heat-shrinkable film according to claim 7, the label being heat-shrunk onto the container body.

11. (Currently Amended): A heat shrinkable label which is mounted on the side surface of a container and which comprises a base film having an edge and another edge, the edge and the another edge being overlapped so as to form a tube, and the edge and the another edge being attached in the overlap part, wherein:

the base film comprises:

(A) front-back film layers each composed of a resin composition comprising of cyclic olefin-based resin of 55 to 95 mass % and linear low-density polyethylene of 45 to 5 mass %; and

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 053451
Application No.: 10/560,033

(B) an intermediate film layer composed of a resin composition comprising ~~propylene-alpha-olefin propylene- α -olefin~~ random copolymer of from 95 to 55 mass % and cyclic olefin-based resin of from 5 to 45 mass %, or composed of a resin composition comprising: a resin composition of from 95 to 55 mass % mainly composed of the ~~propylene-alpha-olefin propylene- α -olefin~~ random copolymer; and the cyclic olefin-based resin of from 5 to 45 mass %,
wherein[[,]] the propylene- α -olefin random copolymer that constitutes the intermediate film layer includes a petroleum resin in an amount of 5 to 70 parts by mass per 100 parts by mass of the propylene- α -olefin random copolymer in order to increase the heat shrinkage in the lateral direction; and

when immersed in hot water of 90°C for 10 seconds, the multi-layered heat-shrinkable film has a heat shrinkage in a lateral direction of 50 % or higher, and has a tear propagation strength in a longitudinal direction of from 800 to 350mN;

wherein the stretching ratio of the heat shrinkable label is from 4.5 to 5.5 times.

12. (Currently Amended): A heat shrinkable label which is mounted on the side surface of a container and which comprises a base film having an edge and another edge, the edge and the another edge being overlapped so as to form a tube, and the edge and the another edge being attached in the overlap part, wherein:

the base film comprises:

Amendment under 37 C.F.R. §1.114
Attorney Docket No.: 053451
Application No.: 10/560,033

(A) front-back film layers each composed of a resin composition comprising cyclic olefin-based resin of 55 to 95 mass % and linear low-density polyethylene of 45 to 5 mass %;

(B) an intermediate film layer composed of a resin composition comprising propylene-~~alpha olefin random~~ propylene- α -olefin copolymer of from 95 to 55 mass % and cyclic olefin-based resin of from 5 to 45 mass %, or composed of a resin composition comprising: a resin composition of from 95 to 55 mass % mainly composed of the ~~propylene alpha olefin~~ propylene- α -olefin random copolymer; and the cyclic olefin-based resin of from 5 to 45 mass %; and

(C) an overcoat layer provided on the front film layer,

wherein the propylene- α -olefin random copolymer that constitutes the intermediate film layer includes a petroleum resin in an amount of 5 to 70 parts by mass per 100 parts by mass of the propylene- α -olefin random copolymer in order to increase the heat shrinkage in the lateral direction; and

wherein the stretching ratio of the heat shrinkable label is from 4.5 to 5.5 times.

13. (New): The multi-layered heat-shrinkable film according to claim 1, wherein the stretching is obtained under the condition of the stretching time being from 5 to 12 seconds.

14. (New): The heat shrinkable label according to claim 11 or 12, wherein the stretching is obtained under the condition of the stretching time being from 5 to 12 seconds.